



Photo 74. Basement - Location of dust sample #8 (top of display case beneath acoustical plaster ceiling)



Photo 75. 10th floor, in W10111B - Location of dust sample #9 (top of foil wrapped HVAC duct in plenum above suspended ceiling)

PUBLIC WORKS BUILDING and ANNEX

Building Location: 611 Walker Street Houston, Texas

Date of Site Visit: 9/20/06

**Field Notes, Background & General Observations**

Building Type: 27-story steel and concrete tower with adjacent 6-story annex building

Material Type: Asbestos-Containing Fireproofing applied to structural steel (corrugated metal pan decking, columns and I beams) with significant overspray on walls (at roof deck interface), piping, conduit, electrical and HVAC equipment. Note: much of the original fireproofing has been abated by the city.

Fireproofing present is a vermiculite based material with a taupe colored appearance – identified as a WR Grace Monokote product.

Material Analysis: Previous bulk sample analysis by EPA/600/R-93/116 indicates fireproofing is asbestos containing

Material Location: The original fireproofing remains in only a few areas of the building: including the men's and women's restrooms – behind plaster ceilings (typically located on the west side of the building) and in the fresh air shafts running vertically through the main building. Additionally there are a few isolated areas in the adjacent Annex building including the plenum of an interconnecting bridge between the two structures. Further, the fireproofing is reported to be present on the exterior steel columns located inside the column enclosures.

Accessibility: Very Limited in the main building – direct access limited to building maintenance and trade personnel working in the air shafts and similar inaccessible areas.

Variable – in the annex as pockets of material remain in areas typically discovered during renovation activities.

Material Friability: Friable (easily crumbled), not painted

Material Damage: Obvious delamination observed throughout remaining application (evidenced by fireproofing dust, debris and small pea size chunks deposited on horizontal surfaces below deck) and evidence of localized significant damage observed in a few areas.

### **AHERA Assessment**

Current Material Condition: Fair to Poor – remaining fireproofing generally appears to be relatively inaccessible or in poor condition.

Physical Assessment: Friable

Damage Assessment: DAMAGED - Approximately 10% distributed damage with sporadic areas of localized damage (<25%)

Material Category: Damaged Friable Surfacing ACM

Potential for Disturbance: High – no barrier between fireproofing and work space, work activities in space include construction and use of material tall enough to impact fireproofing directly.

Freq. of Potential Contact: Limited – areas of remaining fireproofing are inaccessible to general building occupants and difficult to access for maintenance staff and trades.

Influence of Vibration: Moderate – space heaters and HVAC units are hung from the fireproofed decking.

Potential for Air Erosion: High – Deck-hung HVAC units, space heaters, exhaust fans and supply ducts direct air across fireproofing. Additionally large floor mounted cooling/ventilation fans move air across delaminated fireproofing dust and debris.

Overall Rating: Potential for Future Damage

### **Contamination Assessment**

Dust Samples: Two micro-vacuum settled dust samples were collected and analyzed from horizontal surfaces situated directly beneath the fireproofing applications. Observations (relative to morphology, matrix and color) made at the time of dust collection confirmed that the dust and debris collected in the samples were from delaminated/dislodged fireproofing applied directly above the vacuumed surface. Analysis of the dust samples indicates extreme contamination based on asbestos concentrations ranging from approximately 55.2 million to 1.2 billion asbestos fibers per square foot. Refer to table below:

Sample #	Sample Date	General Sample Location	Sample Surface	Asbestos Structures Counted	Asbestos (Conc.) Str/Ft <sup>2</sup>	Asbestos (Conc.) Str/Cm <sup>2</sup>	Relative Contamination Level
1	9/20/2006	PWB 20th Floor Fresh Air Shaft NE Corner	Top of metal pipe	10	5.52x10 <sup>7</sup>	5.94x10 <sup>4</sup>	FP - Moderate
2	9/20/2006	PWB 6th Floor Annex Inside wall Chase	Top of metal pipe	76	1.15x10 <sup>10</sup>	1.23x10 <sup>7</sup>	FP - Extreme

Photographs: **PUBLIC WORKS BUILDING & ANNEX**



Photo 76. 20th floor, NE Fresh Air Shaft - View of damaged fireproofing on concrete structure (above dust sample location #1)